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“जानने का अधिकार, जीने का अधिकार”

Mazdoor Kisan Shakti Sangathan

“The Right to Information, The Right to Live”

“पुराने को छोड़ नये के तरफ”

Jawaharlal Nehru

“Step Out From the Old to the New”

IS 7676 (1975): Chisel, Osseous, Dental [MHD 8: Dentistry]

“ज्ञान से एक नये भारत का निर्माण”

Satyanaaranay Gangaram Pitroda

“Invent a New India Using Knowledge”



“ज्ञान एक ऐसा खजाना है जो कभी चुराया नहीं जा सकता है”

Bhartṛhari—Nītiśatakam

“Knowledge is such a treasure which cannot be stolen”





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*Indian Standard*  
**SPECIFICATION FOR**  
**CHISEL, OSSEOUS, DENTAL**

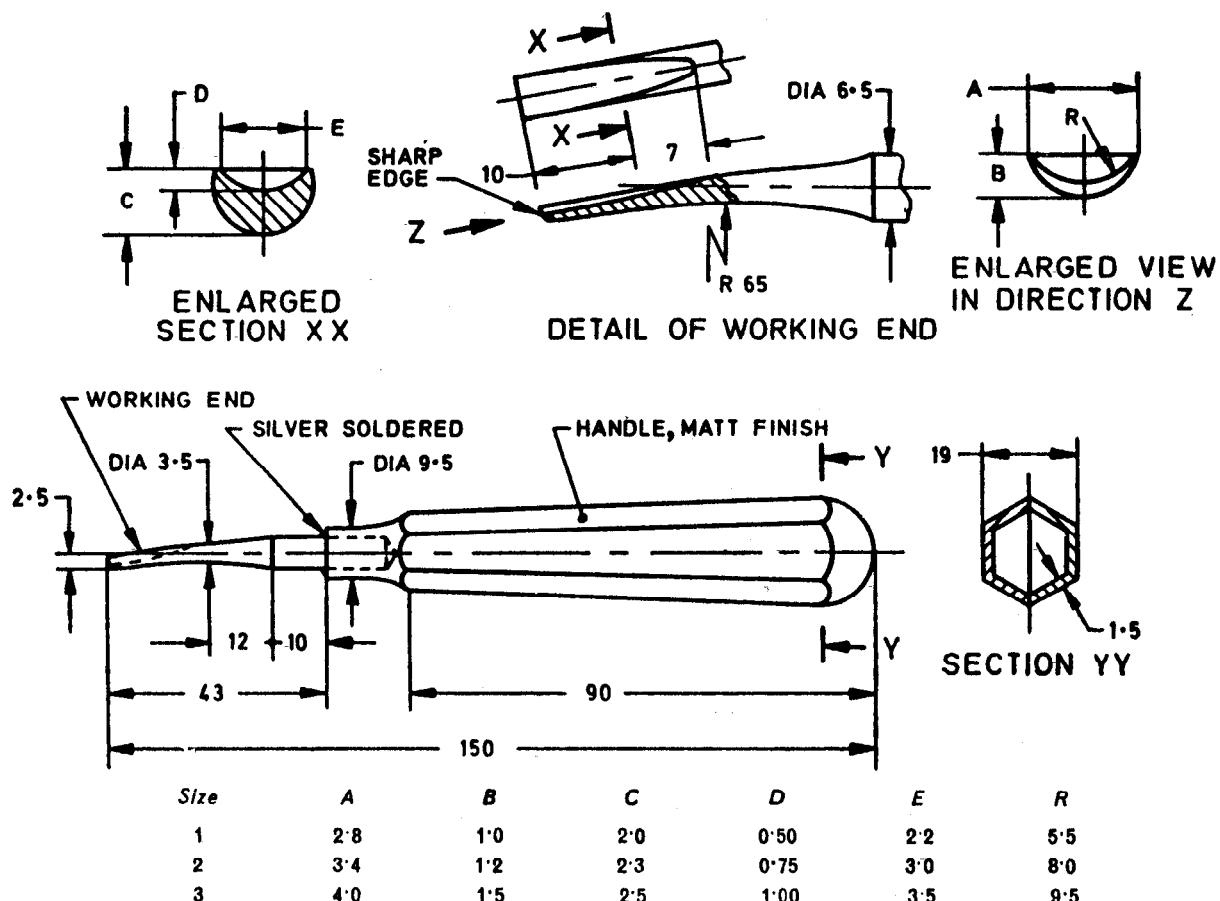
**1. Scope — Dimensions and other requirements for osseous chisel used in dentistry.**

**2. Materials**

**2.1 Shank** — Stainless steel conforming to Designation 40Cr13 of IS : 6603-1972 'Specification for stainless steel bars and flats'.

**2.2 Handle** — Stainless steel sheet conforming to Designation 04Cr18Ni10 or 07Cr18Ni9 of Table 5 of IS : 1570 (Part V)-1972 'Schedules for wrought steels : Part V Stainless and heat-resisting steels (first revision)' or brass sheet conforming to Designation CuZn40 of Table 1 of IS : 410-1967 'Specification for rolled brass plate, sheet, strip and foil (second revision)'.

**3. Shape and Dimensions — As shown in Fig. 1.**



All dimensions in millimetres.

FIG. 1 CHISEL, OSSEOUS, DENTAL

**4. Weight —  $50 \pm 5$  g.**

**5. Workmanship and Finish**

**5.1** The chisel shall be free from pits, cracks, seams or other similar defects.

**5.2** The chisel shall be finished smooth except the handle which shall be matt finished.

**5.3** All edges shall be rounded except the cutting edge which shall be properly sharpened and free from burrs, feathers, nicks and waviness.

**5.4** The shank shall be inserted into the handle and then brazed or welded.

**5.5** The brazing or welding shall be neat and sound.

**5.6** The shank of the chisel shall be polished bright and passivated.

**5.7** The handle if made of brass shall be plated chromium over nickel conforming to Service Grade 2 of IS : 4827-1968 ' Specification for electroplated coatings of nickel and chromium on copper and copper alloys '.

**6. Heat Treatment** — The shank and the blade shall be uniformly hardened and tempered to give a hardness of 600 to 650 HV.

## **7. Tests**

**7.1 Proof Load** — The handle of the chisel shall be fixed in a clamp in such a manner that the junction of the shank and the blade protrude out of the grip in horizontal plane and the concave surface of the blade faces upwards. A load of 250N (approximately 25 kgf) shall then be suspended from about the middle of the blade for about 2 minutes. The chisel shall show no sign of damage after the completion of the test.

**7.2 Performance** — The chisel shall be held in one hand firmly with the edge making an angle of 45° on to a long hard and dry sheep bone. The bone shall be chiselled. After 20 strokes the head of the chisel shall not become mushroom shaped and the edge shall not show any deformation.

**7.3 Corrosion Resistance** — The chisel shall show no sign of corrosion when tested in accordance with IS : 7531-1975 ' Method for boiling and autoclaving test for corrosion resistance of stainless steel surgical instruments '.

**7.4 Leakage Test for Handle** — The handle including the welded portion of the shank shall be immersed in boiling paraffin wax for 2 minutes. There shall not be any air bubbles visible on the surface of the liquid.

**8. Marking** — The handle of the chisel shall be legibly and indelibly marked with the manufacturer's name, initials or trade-mark; letters 'SS' and the country of manufacture.

**8.1 ISI Certification Marking** — Details available with the Indian Standards Institution.

**9. Packing** — As agreed to between the purchaser and the supplier. The working end of the chisel shall be suitably preserved by hot dipping in 'plastipeel'.